

REMARKS

Applicants respectfully request consideration of the subject application as amended herein. This Amendment is submitted in response to the Office Action mailed May 26, 2006.

Claims 1-72 are rejected.

In this Amendment, claims 1, 3, 4, 6, 9-11, 14, 15, 19, 20, 27, 33, 35, 38, 39, 42, 43, 45, 47, 67, and 71 have been amended. It is respectfully submitted that the amendment does not add new matter.

Applicants reserve all rights with respect to the applicability of the Doctrine of equivalents.

Objection to the Drawings

The Examiner objected to Figure 3A because reference numeral 302Z was not mentioned in the specification. Applicants have amended the specification to include a description of reference numeral 302Z. Therefore, no changes to the drawings have been made. Applicants respectfully submit that the change does not add new matter.

Claim Objections

The Examiner objected to claim 1 for not specifying how many search execution engines are present. The Examiner objected to claims 14 and 15 due the term “the value” having no antecedent basis. The applicants have amended claims 1, 14 and 15 to overcome the objection.

Claim Rejections under 35 U.S.C. §102(e)

The Examiner has rejected claims 1-70 under 35 U.S.C. §102(e) as being anticipated by Messenger, et al. (USPN 5,051,947, "Messenger").

Claims 1-46

In claim 1, as amended, applicants claim "a search array coupled to the plurality of search registers, wherein content in the plurality of search registers is replicated and stored in the search array, and a sorter coupled to the search array to perform one or more contextual searches on content in the search array via parallel pattern matching in response to executing one or more search instructions specifying the one or more pattern searches and presenting one or more patterns to the content."

With respect to this limitation (see rejection of claim 26), the Examiner refers to Messenger's col. 27, lines 7-53, figures 3a-f, figure 15 as teaching the claimed search array.

In the areas cited by the Examiner and elsewhere in the specification, Messenger reads as follows:

The hardware employed in the search processor comprises a plurality of serially-connected cells, each cell including a pattern register for storing part of a pattern to be searched for, a character register for storing a character of a data stream to be searched, and comparator means for comparing the contents of the character register and the pattern register. The character registers of the cells are serially connected to form a character line.... Each cell also preferably includes an accumulator register for accumulating match data derived during operation of the system, a counter used in some types of search functions, and a plurality of other registers used in various search functions. The structure of all of the cells is identical, and like registers are connected together in serial strings.

(Messenger, col. 3, lines 53-66) (emphasis added).

A search processor cell array can be configured in such a way as to link counters of adjacent cells together, to form a single virtual counter with N times as many bits as a single counter, which has eight bits, where N is the number of such adjacent counter cells. These extended counters can be used in most places that a single-cell counter is used.... The mechanism for extending counters is illustrated in FIG. 15a... A similar method can be used for sliding window counters and subset counters. Thus, the small size of the processor counter register does not

impose any practical limitation on the power of the processor to perform search operations involving counting in large numbers.

(Messenger, col. 27, lines 7-23) (emphasis added).

Thus, Messenger discloses an array serially-connected cells, each cell including a pattern register, and a character register, and connecting the character registers of the cells serially together to form a character line. The array disclosed in Messenger contains the registers and Messenger does not teach or suggest a “search *array coupled to the plurality of search registers*,” emphasis added, as recited in claim 1. Also, Messenger is silent about and does not teach or suggest that the “content in the plurality of search registers is replicated and stored in the search array”, as recited in amended claim 1.

Therefore, Messenger does not anticipate claim 1 and associated dependent claims 2-66.

Claims 67-70

Amended claim 67 recites “storing a replication of the content in the payload search registers in a search array coupled to the registers.” As discussed above, Messenger does not teach or suggest a “search array coupled to the plurality of search registers,” and that content in the plurality of search registers is replicated and stored in the search array.

Therefore, Messenger does not anticipate claim 67 and associated dependent claims 68-70.

Claim Rejections under 35 U.S.C. §103(a)

The Examiner has rejected claims 71-72 under 35 U.S.C. §103(a) as being unpatentable over Messenger and in further in view of Herman, et al. (USPN 5,050,075, “Herman”).

Applicants respectfully submit that the combination of Messenger and Herman is improper. The Office Action has provided inadequate motivation to combine the cited references under 35 USC § 103. The motivational reason given to combine the Messenger and Herman was to provide “Messenger’s system with decoding instructions.” (Office Action 05/26/06, p. 9). The reasoning provided does not make particular findings of fact as to why a person skilled in the art of search processing would find the suggestion to look to Herman, which discloses a single chip high speed VLSI data filter. Examiner appears to have merely taken a desired end result, as recited in Applicant’s claims, and stated that a combination of Messenger and Herman achieves this end result. Such a position is impermissible hindsight. Applicants respectfully request the Examiner point to the required intrinsic or extrinsic motivation within the references themselves, or within knowledge of persons of ordinary skill in the art at the time of the invention, to form such a combination.

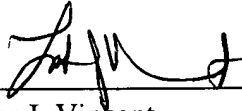
Second, in addition to maintaining that the Examiner has not demonstrated the motivation required to combine Messenger and Herman, applicants respectfully submit that the Examiner’s combination does not teach or suggest all elements in applicant’s claims. Claim 71, as amended, recites “storing a replication of content in a plurality of input payload search registers in a search array coupled to the registers.” As discussed, Messenger does not teach or suggest this limitation. Herman does not supply the missing limitation. Herman discloses a single chip high speed VLSI data filter and does not teach or suggest storing a replication of content in a plurality of input payload search registers in a search array coupled to the registers, as claimed. Therefore, the combination does not teach or suggest all elements in applicant’s claims.

Thus, Messenger and Herman, either individually or in combination, do not render obvious claim 71 and associated dependent claim 72.

Applicants respectfully submit that in view of the amendments and discussion set forth herein, the applicable rejections have been overcome. Accordingly, the present and amended claims should be found to be in condition for allowance.

If there are any additional charges/credits, please charge/credit our deposit account no. 02-2666.

Respectfully submitted,
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